This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-78 (canceled)

Claim 79 (new): High performance filter media comprising nanofibers of diameter less than 1 μm incorporated and processed into internal structure of a filter medium dominantly composed of coarse fibers of diameter greater than 1 μm, said filter media having distally opposite upstream and downstream faces normal to flow therethrough and defining a single layer filter media thickness therebetween, said internal structure incorporating between said faces and within said single layer at least one of the following macrostructures, defined as viewed at magnification of 5 to 50 X, in combination with at least one of the following microstructures, defined as viewed at magnification of 50 to 500 X,

macrostructure A wherein said nanofibers are distributed uniformly throughout said filter media and within said single layer,

macrostructure B wherein said nanofibers are distributed unevenly in bundles providing pockets of nanofibers in a matrix of coarse fibers all within said single layer,

macrostructure C wherein said nanofibers are concentrated at one of said faces and within said single layer,

microstructure 1 wherein said filter media has a nanofiber/coarse fiber interface wherein said nanofibers form bridges across pores between said coarse fibers all within said single layer,

microstructure 2 wherein said filter media has a nanofiber/coarse fiber interface wherein said nanofibers substantially cling onto said coarse fibers all within said single layer,

microstructure 3 wherein said filter media has a nanofiber/coarse fiber interface wherein there is no significant bridging of nanofibers across said pores between

said coarse fibers and no significant clinging of said nanofibers onto said coarse fibers, and instead said nanofibers clump together all within said single layer.

Claim 80 (new): The filter media according to claim 79 wherein said internal structure incorporates said nanofibers with said coarse fibers in an intermingled configuration in said single layer without a nanofiber mat.

Claim 81 (new): The filter media according to claim 79 wherein said nanofibers have portions extending normal to said faces to increase attachment strength to said coarse fibers, reduce delamination risk of said nanofibers, and reduce pressure drop due to increased orientation of said nanofibers in the direction of flow.

Claim 82 (new): The filter media according to claim 79 wherein said filter media is composed of the combination of macrostructure A and microstructure 1.

Claim 83 (new): The filter media according to claim 79 wherein said filter media is composed of the combination of macrostructure A and microstructure 2.

Claim 84 (new): The filter media according to claim 79 wherein said filter media is composed of the combination of macrostructure A and microstructure 3.

Claim 85 (new): The filter media according to claim 79 wherein said filter media is composed of the combination of macrostructure B and microstructure 1.

Claim 86 (new): The filter media according to claim 79 wherein said filter media is composed of the combination of macrostructure B and microstructure 2.

Claim 87 (new): The filter media according to claim 79 wherein said filter media is composed of the combination of macrostructure B and microstructure 3.

Claim 88 (new): The filter media according to claim 79 wherein said filter media is composed of the combination of macrostructure C and microstructure 1.

Claim 89 (new): The filter media according to claim 79 wherein said filter media is composed of the combination of macrostructure C and microstructure 2.

Claim 90 (new): The filter media according to claim 79 wherein said filter media is composed of the combination of macrostructure C and microstructure 3.

Claim 91 (new): The filter media according to claim 79 wherein said filter media is composed of macrostructure B, each of said bundles comprises one or more nanofibers twisted and intermingled into an assemblage, said pockets provide spatially distinct areas of greater filtration efficiency in a matrix of lesser filtration efficiency, the longest dimension of said bundle is less than said filter media thickness, said nanofibers are provided in low enough concentration and small enough diameter that there is insubstantial difference in flow velocity, relative to media without nanofibers, through said media across said faces thereof until said nanofiber bundles begin to plug, whereupon flow is increasingly diverted through coarse fiber sections in said matrix between said pockets such that filtration efficiency is increased relative to media without nanofibers at the same flow velocity and pressure drop, at least initially until said nanofiber bundles begin to plug.

Claim 92 (new): The filter media according to claim 91 wherein said longest dimension of said bundle is in the range of 10% to 50% of said single layer filter media thickness.

Claim 93 (new): The filter medial according to claim 79 wherein in combination said nanofibers and said coarse fibers comprise first and second fiber types, respectively, and wherein:

one of said first and second fiber types is selected from the group consisting of: nylon, polyaramid; and cellulose; and

the other of said first and second fiber types is selected from the group consisting of: acrylic; polyester; polypropylene; and polymeric halocarbon.

Claim 94 (new): The filter media according to claim 79 wherein said nanofibers have different adsorption properties than said coarse fibers.

Claim 95 (new): The filter media according to claim 79 wherein said nanofibers and said coarse fibers have different surface charge characteristics providing a localized electric field gradient within said filter media enhancing particle removal from fluid to be filtered.

Claim 96 (new): The filter media according to claim 79 wherein said nanofibers and said coarse fibers have different wettability.

Claim 97 (new): The filter media according to claim 96 wherein said filter media captures droplets from a liquid to be filtered, and wherein said nanofibers are preferentially wetted by said droplets, and said coarse fibers are preferentially non-wetted by said droplets, whereby to create a capillary pressure gradient wicking droplets off said coarse fibers, facilitating drainage.

Claim 98 (new): The filter media according to claim 96 wherein said filter media captures and coalesces droplets from a liquid to be filtered, and wherein said nanofibers are preferentially non-wetted by said droplets, and said coarse fibers are preferentially wetted by

said droplets, whereby to create a capillary pressure gradient wicking droplets off said nanofibers, facilitating coalescence and drainage.

Claim 99 (new): The filter media according to claim 79 comprising a trimodal distribution of fiber diameter, all in said single layer, comprising a first set of fibers in the diameter range 50 to 500 nm, a second set of fibers in the diameter range 1 to 5 μm, and a third set of fibers in the diameter range 10 to 50 μm.

Claim 100 (new): The filter media according to claim 99 wherein said first set of fibers is supported by said second set of fibers, and said second set of fibers is supported by said third set of fibers, said first set of fibers providing said nanofibers, said second and third sets of fibers providing said coarse fibers.

Claim 101 (new): The filter media according to claim 100 wherein said second set of fibers comprise a fibrillated para-aramid polymer, and said third set of fibers comprise a cellulose matrix.

Claim 102 (new): The filter media according to claim 79 wherein in combination:

said nanofibers are selected from the group consisting of: polymeric materials; ceramic materials; acrylic; nylon; polyvinyl alcohol; polymeric halocarbon; polyester; polyaramid; polyphenylsulfide; cellulose; titania; glass; alumina; and silica; and

said coarse fibers are selected from the group consisting of: polymeric materials; ceramic materials; polyvinyl alcohol; cellulose; acrylic; polyester; polyaramid; titania; glass; silica; nylon; polyphenylsulfide; polymeric halocarbon; and alumina.